

In re: Gerald H. Negley et al.
Application Serial No.: 10/659,108
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In the Claims:

1-2. (Canceled)

3. (Currently Amended) A mounting substrate for a semiconductor light emitting device comprising:

a solid aluminum block including a cavity in a face thereof that is configured for mounting a semiconductor light emitting device therein; [[and]]

a conformal insulating coating comprising aluminum oxide on a surface of the solid aluminum block, and in the cavity; and

first and second spaced apart conductive traces on the conformal insulating coating in the cavity that are configured for connection to a semiconductor light emitting device.

4. (Previously Presented) A mounting substrate according to Claim 3 wherein face is a first face and wherein the first and second spaced apart conductive traces extend from the cavity to the first face, around at least one side of the aluminum block and onto a second face of the aluminum block that is opposite the first face.

5. (Previously Presented) A mounting substrate according to Claim 3 wherein the first and second spaced apart conductive traces on the conformal insulating coating in the cavity comprise reflective material.

6. (Previously Presented) A mounting substrate according to Claim 3 wherein the face is a first face and wherein the solid aluminum block includes therein first and second through holes that extend from the first face to a second face of the solid aluminum block that is opposite the first face, the respective first and second through holes including a respective first and second conductive via therein that extends from the first face to the second face and wherein a respective one of the spaced apart conductive traces is electrically connected to a respective one of the conductive vias.

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7. (Original) A mounting substrate according to Claim 6 wherein the first and second through holes extend from the cavity to the second face.

8. (Canceled)

9. (Previously Presented) A mounting substrate according to Claim 3 wherein the face is a first face and wherein the solid aluminum block includes therein first and second through holes that extend from the first face to a second face of the solid aluminum block that is opposite the first face, the respective first and second through holes including the conformal insulating coating thereon that comprises aluminum oxide and a respective first and second conductive via therein that extends from the first face to the second face and wherein a respective one of the spaced apart conductive traces is electrically connected to a respective one of the conductive vias.

10. (Previously Presented) A mounting substrate according to Claim 6 further comprising third and fourth spaced apart conductive traces on the second face of the solid aluminum block, a respective one of which is connected to a respective one of the conductive vias.

11. (Original) A mounting substrate according to Claim 3 in combination with a semiconductor light emitting device that is mounted in the cavity and is connected to the first and second spaced apart conductive traces.

12. (Original) A mounting substrate according to Claim 11 in further combination with a lens that extends across the cavity.

13. (Original) A mounting substrate according to Claim 12 in further combination with an encapsulant between the semiconductor light emitting device and the lens.

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14. (Previously Presented) A mounting substrate according to Claim 12 in further combination with a lens retainer on the solid aluminum block that is configured to hold the lens across the cavity.

15. (Previously Presented) A light emitting device comprising:
a solid aluminum block including a cavity in a face thereof and a conformal aluminum oxide coating on a surface thereof including in the cavity;
first and second spaced apart conductive traces on the conformal aluminum oxide coating in the cavity;
a semiconductor light emitting device that is mounted in the cavity and is connected to the first and second spaced apart conductive traces;
a lens that extends across the cavity; and
an encapsulant between the semiconductor light emitting device and the lens.

16. (Original) A light emitting device according to Claim 15 wherein the face is a first face and wherein the first and second spaced apart conductive traces extend from the cavity to the first face, around at least one side of the solid aluminum block and onto a second face of the solid aluminum block that is opposite the first face.

17. (Previously Presented) A light emitting device according to Claim 15 wherein the first and second spaced apart conductive traces on the conformal aluminum oxide coating in the cavity comprise reflective material.

18. (Previously Presented) A light emitting device according to Claim 15 wherein the face is a first face and wherein the solid aluminum block includes first and second through holes that extend from the first face to a second face of the solid aluminum block that is opposite the first face, the respective first and second through holes including the conformal aluminum oxide coating thereon and a respective first and second conductive via therein that extends from the first face to the second face and wherein a respective one of the spaced apart conductive traces is electrically connected to a respective one of the conductive vias.

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19. (Original) A light emitting device according to Claim 18 wherein the first and second through holes extend from the cavity to the second face.

20. (Original) A light emitting device according to Claim 18 further comprising third and fourth spaced apart conductive traces on the second face of the solid aluminum block, a respective one of which is connected to a respective one of the conductive vias.

21-28. (Canceled)